

AMENDMENTS TO THE CLAIMS

1. (currently amended) A polyethylene composition with multimodal molecular mass distribution, which has a density in the range of from 0.950 to 0.956 g/cm³ at 23 °C and an MFR_{190/21.6} in the range of from 1.5 to 3.5 dg/min and which comprises from 35 to 45 % by weight of a low-molecular-mass ethylene homopolymer A₂; from 34 to 44 % by weight of a high-molecular-mass copolymer B made from ethylene and ~~from another~~ a first 1-olefin comonomer having from 4 to 8 carbon atoms; and from 18 to 26 % by weight of an ultrahigh-molecular-mass ethylene copolymer C containing a second 1-olefin comonomer, wherein all of the percentage data are based on the total weight of the molding composition.
2. (currently amended) ~~A~~ The polyethylene molding composition as claimed in claim 1, wherein the first 1-olefin comonomer is present in an amount ~~high-molecular-mass copolymer B contains small proportions of less than 0.1 % by weight of co-monomer having from 4 to 8 carbon atoms, based on the weight of copolymer B, and wherein the ultrahigh-molecular-mass ethylene copolymer C contains an amount in the range~~ the second 1-olefin comonomer is present in an amount from 0.1 to 0.6 % by weight of ~~co-monomers~~, based on the weight of copolymer C.
3. (currently amended) ~~A~~ The polyethylene composition as claimed in claim 1 ~~or 2, which, as a co-monomer, contains~~ wherein the first 1-olefin and second 1-olefin comonomers are independently selected from 1-butene, 1-pentene, 1-hexene, 1-octene, 4-methyl-1-pentene, or mixtures of these.
4. (currently amended) ~~A~~ The polyethylene composition as claimed in ~~one or more of claims 1 to 3~~ claim 1, which has a viscosity number VN_{tot} of from 500 to 600 cm³/g measured to ISO/R 1191 in decalin at 135 °C.

5. (currently amended) ~~A~~The polyethylene composition as claimed in ~~one or more of claims 1 to 4~~claim 1, which has a swell ratio in the range from 180 to 220 %, ~~and~~ a notched impact strength (ISO) in the range from 60 to 90 kJ/m², and a stress-crack resistance (FNCT) in the range from 15 to 25 h.

6. (currently amended) A process for producing a polyethylene composition with multimodal molecular mass distribution, which has a density in the range of from 0.950 to 0.956 g/cm³ at 23 °C, an MFR_{190/21.6} in the range of from 1.5 to 3.5 dg/min and which comprises from 35 to 45 % by weight of a low-molecular-mass ethylene homopolymer A; from 34 to 44 % by weight of a high-molecular-mass copolymer B made from ethylene and a first 1-olefin comonomer having from 4 to 8 carbon atoms; and from 18 to 26 % by weight of an ultrahigh-molecular-mass ethylene copolymer C containing a second 1-olefin comonomer, wherein all of the percentage data are based on the total weight of the molding composition, wherein ~~as claimed in one or more of claims 1 to 5, in which~~ the monomers are polymerized in slurry in a temperature range of from 60 to 90 °C at a pressure in the range of from 0.15 to 1.0 MPa, and in the presence of a high-mileage Ziegler catalyst composed of a transition metal compound and of an organoaluminum compound, ~~which comprises~~the process comprising conducting polymerization in three stages, wherein the molecular mass of each polyethylene prepared in each stage is regulated with the aid of hydrogen, thereby forming a hydrogen concentration in each stage.

7. (currently amended) ~~A~~The process as claimed in claim 6, wherein the hydrogen concentration in the first polymerization stage is adjusted so that ~~the~~a viscosity number VN₁ of the low-molecular-mass ~~polyethylene~~ethylene homopolymer A is in the range of from 160 to 220 cm³/g.

8. (currently amended) ~~A~~The process as claimed in claim 6 ~~or 7~~, wherein the hydrogen concentration in the second polymerization stage is adjusted so that ~~the~~a viscosity number VN₂ of ~~the~~a mixture of polymer A and polymer B is in the range of from 230 to 320 cm³/g.

9. (currently amended) ~~A~~The process as claimed in any of claims 6 to 8~~claim 6~~, wherein the hydrogen concentration in the third polymerization stage is adjusted so that ~~the~~a viscosity number VN_3 of ~~the~~a mixture of polymer A, polymer B, and polymer C is in the range of from 500 to 600 cm^3/g .

10. (currently amended) ~~The use~~A process for producing an L-ring drum having a capacity in a range from 50 to 250 dm^3 (l) from ~~of~~ a polyethylene composition with multimodal molecular mass distribution, which has a density in the range of from 0.950 to 0.956 g/cm^3 at 23 °C, an $\text{MFR}_{190/21.6}$ in the range of from 1.5 to 3.5 dg/min and which comprises from 35 to 45 % by weight of a low-molecular-mass ethylene homopolymer A; from 34 to 44 % by weight of a high-molecular-mass copolymer B made from ethylene and a first 1-olefin comonomer having from 4 to 8 carbon atoms; and from 18 to 26 % by weight of an ultrahigh-molecular-mass ethylene copolymer C containing a second 1-olefin comonomer, wherein all of the percentage data are based on the total weight of the molding composition~~as claimed in one or more of claims 1 to 5 for producing L-ring drums with a capacity in the range of from 50 to 250 dm^3 (l), where the polyethylene composition is first plasticized, the process comprising:~~
 - (a) plasticizing the polyethylene composition in an extruder in a temperature range of from 200 to 250 °C; ~~and is then extruded~~
 - (b) extruding the product of step (a) through a die into a mold; ~~where it is blown up and then cooled and solidified~~
 - (c) blowing up the product of step (b) in a blow molding apparatus, thereby forming the L-ring drum; and
 - (d) solidifying the L-ring drum by cooling.